

## WEST Search History

DATE: Tuesday, September 02, 2003

Set Name Query  
side by side

Hit Count Set Name  
result set

*DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ*

L7	L6 and ((mail or email) near8 message)	42	L7
L6	L5 and @AD<20000307	200	L6
L5	((software or driver) near8 ( distribute or distribution)) same (upload or uploading or download or downloading )	500	L5
L4	(software or driver) near8 (lisence or lisencing or lisenced)	1	L4
L3	L2 and @AD<20000307	64	L3
L2	(remote near8 (diagnose or diagnosing or diagnostic)) same (upload or uploading or download or downloading )	134	L2
L1	remote near8 (diagnose or diagnosing or diagnostic)	4158	L1

END OF SEARCH HISTORY

**WEST**

Generate Collection

L3: Entry 8 of 64

File: USPT

Feb 4, 2003

DOCUMENT-IDENTIFIER: US 6516427 B1

TITLE: Network-based remote diagnostic facility

Abstract Text (1):

The invention is utilized in the context of a peripheral device that is coupled to a network via a firewall which blocks unwanted incoming message traffic, except for incoming message traffic that is responding to a message dispatched from the peripheral device. A remotely located diagnostic device, which includes code for diagnosis of causes of peripheral device malfunctions, is connected to communicate via the network. The peripheral device includes a memory for storing a diagnostic application that is adapted to execute one or more diagnostic subroutines for diagnosing a cause of a device malfunction. The peripheral device is enabled to dispatch an event message to the remote diagnostic device and to receive a response message from the remote diagnostic device (all via the firewall and the network). The response message causes a diagnostic application to execute a subroutine on the peripheral device in an attempt to determine the cause of the event. In the case where the remote diagnostic device is adapted to download an executable diagnostic subroutine, the peripheral device executes the diagnostic subroutine.

Application Filing Date (1):19991105Brief Summary Text (13):

It is yet another object of this invention to provide a remote diagnosis facility that can download executable diagnostic code through a firewall to a device evidencing a malfunction.

Detailed Description Text (14):

Interactive diagnostic procedure 38 then either causes a download of another diagnostic subroutine or outputs a message indicating its diagnosis of the problem. Thus, as shown in step 60, RDD 34 interactively controls event registration and detection routine 24 to run various diagnostic subroutines in accordance with received results. In such manner, System 10 is enabled to implement and carry out remote malfunction diagnosis even when a firewall device is present between the remote diagnostic device and the peripheral device manifesting the malfunction.

**WEST**☐ Generate Collection

L3: Entry 2 of 64

File: PGPB

Dec 20, 2001

DOCUMENT-IDENTIFIER: US 20010054161 A1

TITLE: METHOD AND APPARATUS FOR PERFORMING FIELD DIAGNOSTICS ON A COMPUTER SYSTEM

Application Filing Date (1):  
19980715

Detail Description Paragraph (4):

[0015] The remote management console 120 sends a signal to a shutdown agent on the computer system 110 to initiate a shutdown and reset of the computer system 110. By resetting the computer system 110, the computer system will execute its Basic Input Output System (BIOS) code. The BIOS code includes a boot strap loader. When executed, the boot strap loader puts the computer system 110 in a diagnostic state. The boot strap loader recognizes when a connection from the remote management console 120 has been established. The boot strap loader may be used to authorize a diagnostic session request from the remote management console 120, provide the remote management console 120 with information about the computer system 110, and provide support in downloading diagnostic software code from the remote management console 120 directly into a memory in the computer system 110. The diagnostic software code may be executed by a processor (not shown) in the computer system 110 to generate a diagnostic report of the condition of the computer system 110 to the remote management console 120.

Detail Description Paragraph (18):

[0029] The boot strap loader module 324 includes a system status provider 324. The system status provider 324 provides the remote management console 120 with information about the computer system 110 to allow the remote management console 120 to determine appropriate diagnostics to download onto the computer system 110. The system status provider 324 may provide the remote management console 120 with information about the version of the BIOS 300 in the computer system 110, an initialization report that describes the results of the tests performed by the initialization module 310, or other information. It should be appreciated that the system status provider may reside in the management module 225 instead of the boot strap loader 320.

Detail Description Paragraph (19):

[0030] The boot strap loader module 320 includes a data handler 325. During a diagnostic session, the data handler 325 receives data from the remote management console 120. The data includes diagnostic software code and a location in the memory 213 to write the diagnostic software code. The data handler 325 writes diagnostic software code received into locations in memory as specified by the remote management console 120. A diagnostic environment loader program may be downloaded by the data handler 325 in a situation where a two stage loading process is required. In a two stage loading process, the data handler 325 downloads the diagnostic environment loader which takes control of the downloading. The diagnostic environment loader may include functionalities which allows it to support more complicated loading operations not supported by the data handler 325.

Detail Description Paragraph (23):

[0034] The console diagnostic tester 400 includes a connection initiator 410. The connection initiator 410 establishes a connection between the remote management console 120 with the computer system 110. The connection initiator 410 also generates a signal to a shutdown agent on the computer system 110 to initiate a shutdown and reset of the computer system 110. Resetting the computer system 110 executes the bootstrap loader 320 (shown in FIG. 3) in the BIOS 300 (shown in FIG. 3) which places the computer system 110 in a diagnostic state. The console diagnostic tester 400 includes a session initiator 420. Upon receiving a query message from the computer system 110, the console diagnostic tester 400 transmits a diagnostic session request message to the computer system 110. The session initiator 420 may also transmit a diagnostic session password with the diagnostic request message. The diagnostic session password may be used by the

computer system 110 to confirm that the remote management console 120 has authorization to request the diagnostic session. The console diagnostic tester 400 includes a system interrogator 430. Upon receiving a message from the computer system 110 that indicates a diagnostic session has been established successfully, the system interrogator 430 interrogates the computer system 110 for information to determine types of diagnostics to download to the computer system 110. The system interrogator 430 may request for example a version of the BIOS on the computer system 110, an initialization report generated by the BIOS of the computer system 110, or other information. The console diagnostic tester 400 includes a data loader 440. The data loader 440 downloads data to the computer system 110. The data loader 440 downloads data that includes diagnostic software code and locations in memory to write the diagnostic software code. The diagnostic software code may include a diagnostic environment loader to assist in downloading additional data, a test run time environment, a test control agent, and diagnostic tests. The console diagnostic tester 400 includes an execution unit 450 that runs the diagnostic software downloaded on the computer system 110.

Detail Description Paragraph (27):

[0038] The present invention allows the remote downloading and execution of diagnostic test programs 540 onto the computer system 110 without any local user intervention. The present invention does not require a peripheral drive such as a hard drive, floppy drive, or CDROM drive to be functional on the computer system 110 to support the diagnostic session. The test run time environment 520 and diagnostic tests 540 are downloaded to memory 213 rather than run from the computer system peripheral disk drive.

CLAIMS:

21. The apparatus of claim 19, further comprising a system status provider that provides the remote computer system with information to determine types of diagnostic software to download to the computer system.

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L3: Entry 9 of 64

File: USPT

Dec 24, 2002

DOCUMENT-IDENTIFIER: US 6499114 B1

TITLE: Remote diagnostic system and method collecting sensor data according to two storage techniques

Application Filing Date (1):19990217

## CLAIMS:

13. The diagnostic system of claim 7, wherein the local diagnostic unit communicates a notification flag to a central diagnostic unit, wherein the diagnostic system includes the central diagnostic unit located remote from the site, the central diagnostic unit communicating with the local diagnostic unit to obtain the parameters stored by the local diagnostic unit, wherein the central diagnostic unit downloads the anomaly data and the parameters stored in the local database in response to the notification flag.

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L3: Entry 11 of 64

File: USPT

Oct 22, 2002

DOCUMENT-IDENTIFIER: US 6470288 B1  
TITLE: Dispenser with updatable diagnostic system

Application Filing Date (1):  
19990618

Brief Summary Text (20):

Yet another advantage of the present invention is the ability to run diagnostic functions on a fuel dispenser from a remote or off-site location. A technician is able to access the fuel dispenser through the remote communication system. For example, a technician at a remote or off-site location, using a remote computer or server, can access or log into the fuel dispenser in which diagnostics are to be run. From that remote location, the technician has access to data from the fuel dispenser which can be uploaded from the fuel dispenser through the remote communication system to the remote computer. Similarly, the technician is able to download information from the remote server to the fuel dispenser.

Detailed Description Text (21):

Remote computer 38 may contain remote diagnostic software for fuel dispenser 10. A technician at a remote or off-site can use remote computer 38 to access fuel dispenser 10 through the remote communication means 32. The off-site technician can upload information pertinent to a fuel dispenser component function for component diagnostics. In addition, an off-site is remote technician can download updates of system software and system diagnostic software from remote computer 38 through remote communication means 32.

Detailed Description Text (22):

A technician on-site, at the fuel dispenser, can initiate fuel dispenser 10 diagnostics. The on-site technician can use wireless input device 34 during fuel dispenser component and system software diagnostics. In addition, the on-site technician has access to the most current system diagnostics through the use of the remote communication means 32, which provides communication between the processor 28 and remote computer 38. The on-site technician can initiate the upload of data from fuel dispenser 10 (individual fuel dispenser components, components' functions and system and diagnostic software) to remote computer 38. Similarly, the on-site technician can download data; and system and diagnostic software upgrades from remote computer 38 to processor 28.

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L3: Entry 16 of 64

File: USPT

Jun 25, 2002

DOCUMENT-IDENTIFIER: US 6411678 B1  
TITLE: Internet based remote diagnostic system

Application Filing Date (1):  
19991001

Detailed Description Text (5):

For example, if remote site 10 is monitoring a turbine generator, data obtained from vibration sensors may be sent to the POP server 14 twelve times a day. Diagnostic center 12 retrieves these data from the POP server 14 to search for trends in the data that indicate a turbine failure might occur over the next twenty-four hours. If vibration data at the remote site 10 indicate that vibration energy exceeds a preset threshold, an alarm signal is sent to the POP server 14 from the remote site 10. Diagnostic center 12 continuously monitors the POP data to look for an alarm signal, and alerts the responsible individuals when the alarm signal is detected. Occasionally, perhaps monthly, the diagnostic center 12 may initiate a connection to a remote site 10 to maintain the database in the remote site 10, or to change the data, or to download schedule or sensor thresholds. To do this the diagnostic center 12 pages the remote site, or places a telephone call to the remote site 10 to initiate a "call-back" from the remote site 10 to the POP server 14. A virtual private network (VPN) can then be established between the diagnostic center 12 and the remote site 10.

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L3: Entry 20 of 64

File: USPT

Jan 8, 2002

DOCUMENT-IDENTIFIER: US 6338152 B1

TITLE: Method and system for remotely managing communication of data used for predicting malfunctions in a plurality of machines

Abstract Text (1):

A method and system for managing communication of electronic data between a diagnostic service center and a plurality of machines generally remote relative to each other is provided. The electronic data is made up of respective machine data from selected machines. The machine data is used for detecting the presence of respective malfunctions which, if left uncorrected, would likely result in respective mission failures of the selected machines. The method allows for storing in a database a list of respective cases to be processed. The method further allows for assigning to each case a respective download priority. A determining step allows for determining each case to be populated next with new machine data based at least upon the assigned download priority. Respective executing steps allow for executing a download of the new machine data, and for executing predetermined analysis on the downloaded data for detecting the presence of respective malfunctions in the selected machines.

Application Filing Date (1):

20000224

Brief Summary Text (10):

Generally speaking, the present invention fulfills the foregoing needs by providing a method for managing communication of electronic data between a diagnostic service center and a plurality of machines generally remote relative to each other. The electronic data comprises at least respective machine data from selected machines. The machine data is used for detecting the presence of respective malfunctions which, if left uncorrected, would likely result in respective mission failures of the selected machines. The method allows for storing in a database a list of respective cases to be processed. The method further allows for assigning to each case a respective download priority. A determining step allows for determining each case to be populated next with new machine data based at least upon the assigned download priority. Respective executing steps allow for executing a download of the new machine data, and for executing predetermined analysis on the downloaded data for detecting the presence of respective malfunctions in the selected machines.



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L3: Entry 21 of 64

File: USPT

Dec 4, 2001

DOCUMENT-IDENTIFIER: US 6325540 B1

**\*\* See image for Certificate of Correction \*\***

TITLE: Method and apparatus for remotely configuring and servicing a field replaceable unit in a medical diagnostic system

Application Filing Date (1):  
19991129

## CLAIMS:

19. The system of claim 14, wherein the means for configuring the medical diagnostic system in accordance with the configuration information from the remote facility comprises downloading new operating system software to the medical diagnostic system.

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L3: Entry 44 of 64

File: USPT

Oct 27, 1998

DOCUMENT-IDENTIFIER: US 5828862 A

TITLE: Game programming flash memory cartridge system including a programmer and a reprogrammable cartridge

Application Filing Date (1):19970513Detailed Description Text (37):

Also further connected to the separate or game storage computer, by way of example a telephone line is a host game computer which serves to update the directory of the game computer and run remote diagnostics if necessary. The host computer also functions to download and store new or modified games for later transmission to the game storage computer and also provides for the transmission of other data.

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L3: Entry 45 of 64

File: USPT

Sep 1, 1998

DOCUMENT-IDENTIFIER: US 5802274 A

TITLE: Cartridge manufacturing system for game programs

Application Filing Date (1):  
19940504

Detailed Description Text (36):

Also further connected to the separate or game storage computer, by for example a telephone line, is a host game computer which serves to update the directory of the game computer and run remote diagnostics if necessary. The host computer also functions to download to and store new or modified games for later transmission to the game storage computer and also provides for the transmission of other data.

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L3: Entry 46 of 64

File: USPT

Jun 16, 1998

DOCUMENT-IDENTIFIER: US 5768495 A

TITLE: Method and apparatus for printer diagnostics

Application Filing Date (1):  
19961003Brief Summary Text (10):

It would be highly desirable for a field technician to have a system by which a printer could be serviced in a remote location by downloading full diagnostic code to the printer without having to directly connect the printer to a computer. In addition, it would be highly useful to be able to selectively reprogram such a portable device with different forms of executable diagnostic programs as well as print files to be used for the testing and servicing of printers in the field.

Brief Summary Text (12):

In one aspect, the present invention includes a system for the diagnostic testing of printers at remote locations by downloading software from a computer into a selectively reprogrammable memory within a portable diagnostic controller. The portable controller is then transported to a remote location and connected to a printer. The software stored in the reprogrammable memory of the portable controller is the downloaded into a printer for testing of the printer. The software may included both executable code for the diagnosis of operating conditions within the printer and data files to be printed by the printer.

Detailed Description Text (10):

Referring to the flow chart of FIG. 6, when a printer, such as that illustrated in FIG. 5, is powered on at 61 it performs a self test by executing the instructions within the instruction ROM 46 and then moves to 62 at which it determines whether or not download mode has been selected. Download mode is a special diagnostic mode which may be selected by an operator or technician when it is desired to run diagnostic programs in the printer. The mode is selected by powering on the printer while holding two designated keys, such as the "ON-LINE" and "ESC" keys, depressed on the front panel display and keypad 53 (FIG. 5). If download mode is not selected, the system moves to 63 and jumps to its normal operating system and loads that operating system from the instruction ROM 46 and awaits data to be printed. If, however, download mode was selected at 62, the system moves to 64 at which it waits for a query from the printer parallel port 42 to be received from the printer diagnostic controller of the present invention. This is in response to the hand shaking instituted by the printer diagnostic controller. Next, at 65, the printer responds to the query and the hand shaking operation, and signals the diagnostic controller that data may then be downloaded from the flash memory 23 of the diagnostic controller into the DRAM memory 48 of the printer. At 66, the printer accepts the data from the printer parallel port 42 and copies it into the DRAM 48 of the printer. For example, up to 1 MB of data may be downloaded to a specified location. This feature enables very large diagnostic programs to be input into the printer from outside, and enables the implementation of very sophisticated diagnostic routines be executed within the printer which could never be stored within the printer itself because of lack of memory space. Once the data has been downloaded into the DRAM 48 of the printer, a control instruction within the instruction ROM 46 causes the printer to jump to the downloaded code and begin execution thereof. While executing such diagnostic programs, the service technician can interface at the front panel display and keypad 53 of the printer and execute numerous diagnostic evaluative tests within the printer heretofore not possible without directly connecting the printer to a computer. Moreover, the present system enables updated diagnostic code to be periodically furnished to service technicians in either of two ways. Updated code can be sent by modem into a PC at a remote location and then downloaded into the printer diagnostic controller of the present invention, or updated code can be furnished on diskettes containing such software to technicians who then

load it first into a computer and then into the diagnostic controller of the present invention.

Detailed Description Text (16):

As can be seen from the above description, the method and apparatus of the printer diagnostic controller of the present invention enables both diagnostic programs and print-files to be downloaded into a PC by either modem or diskette and then further loaded into the printer diagnostic controller. Thus loaded, the controller of the present invention may be carried to remote locations by a service technician and there used to further download both diagnostic programs and print-files into a printer for use by that printer in performing diagnostic and testing operations within the printer as well as serve as a data base for print-files to be used by the printer in the course of diagnostic operations therein.

**WEST**

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L3: Entry 48 of 64

File: USPT

Mar 24, 1998

DOCUMENT-IDENTIFIER: US 5732268 A

**\*\* See image for Certificate of Correction \*\***

TITLE: Extended BIOS adapted to establish remote communication for diagnostics and repair

Abstract Text (1):

An extended basic input output system (E-BIOS) has a first portion of code for providing power-on self-test (POST) and boot functions for a first computer, including code for sensing if the first computer does not boot. In the event of failure to boot, a second portion of code in the E-BIOS directs establishing communication link with a remote diagnostics and repair computer. When communication is established, a master code kernel at the diagnostics and repair computer may be executed to download a slave kernel to random access memory of the first computer, blowing an automatic software kernel or an operator at the diagnostics and repair computer to access and modify code and data in memory devices of the first computer, and to reboot the first computer after repair. Communication links may be by telephone modem, either analog or integrated Services Digital Network (ISDN), or by network links. In one embodiment cooperation between the slave kernel and the master kernel is such that an operator may operate the diagnostics and repair computer as though it were the first computer.

Application Filing Date (1):

19960226

Detailed Description Text (15):

FIG. 3 is a logic flow diagram of operations between a failed E-BIOS PC 11 and a remote diagnostics and repair PC 13 (FIG. 1) in an embodiment of the invention after the E-BIOS host is active on the diagnostics and repair PC and communication has been established with the failed E-BIOS PC. At step 31 communication is established. At step 33 slave kernel 22 is downloaded from diagnostic and repair PC 13 over link 15 to failed PC 11. In human-operated embodiments the downloading is initiated by the human operator. In automatic operation the downloading is directed by AS kernel 24 (FIG. 1).

**WEST**

Generate Collection

L3: Entry 59 of 64

File: USPT

Dec 13, 1988

DOCUMENT-IDENTIFIER: US 4791661 A

TITLE: Portable EPROM programming and data transfer apparatus

Application Filing Date (1):19860701Detailed Description Text (17):

As another example of the use of the present apparatus for remote diagnosis, a correct "download" of the contents of an EPROM can be loaded into RAM 20 from a remote diagnostic computer through telephone interface 11 and modem 12. The suspected defective local EPROM can then be inserted into EPROM socket 13, and its contents can be compared, bit by bit, with the correct EPROM contents in RAM 20 received from the remote source. This permits a determination of whether the problem with the local EPROM is caused by corruption, i.e. altering, of its once correct firmware, or whether in fact there is an error in the "correct" firmware.

**WEST**

Generate Collection

L3: Entry 61 of 64

File: DWPI

Aug 20, 2002

DERWENT-ACC-NO: 2002-255258

DERWENT-WEEK: 200257

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TITLE: Diagnostic and management method e.g. for server system, involves downloading  
diagnostic software from remote location and executing downloaded software

PF Application Date (1):  
19980715

PF Application Date (2):  
19980715



**WEST**

Generate Collection

Print

L7: Entry 13 of 42

File: USPT

May 20, 2003

DOCUMENT-IDENTIFIER: US 6567107 B1

TITLE: Method and system for indicating a license status of an object

Application Filing Date (1):

20000127

Brief Summary Text (3):

Numerous software applications exist for performing various types of functions on computers. Software distribution schemes allow users to download software through communication networks such as the Internet. Due to competition in the market, many software manufactures have used these distribution schemes to provide a free trial application to a potential customer allowing the potential customer to use the software application for a limited time or in a limited capacity. If satisfied, the customer may purchase the full commercial version of the software or may purchase a license to continue using the trial software application.

Detailed Description Text (54):

Preferably, the user receives, through electronic mail, a message from the server computer indicating that new libraries have been created for the licenses that the user has obtained. In the exemplary embodiment, an electronic mail message is transmitted at four times per year to the user from the server computer 720. The server computer 720 maintains a data base of all users that have purchased a license and corresponding expiration dates. The server computer 720 sends an electronic mail message to warn the user that a particular license is near its expiration date. The user is reminded that the objects 102 within new libraries (300) will be displayed with an unlicensed tag 104 unless a new license is obtained.

**WEST**

Generate Collection

Print

L7: Entry 19 of 42

File: USPT

Feb 25, 2003

DOCUMENT-IDENTIFIER: US 6526442 B1

TITLE: Programmable operational system for managing devices participating in a network

Application Filing Date (1):  
19980707

Detailed Description Text (13):

There are many categories of actions that the management server 102 discovers. One action category is hardware fault detection, which is a category of actions identifying problems with hardware. Examples of hardware fault detection include failures or predictive failures on hard drives, processors, and memory. Most problem resolutions in the hardware fault detection category are simply identified steps that the user must follow to correct the problem. Tools in this category allow viewing of the problem. Another action is software configuration actions, which are actions that identify potential problems with software configurations. Software configuration actions use version control functionality along with the concept of a "software set". The user establishes a set of software that should be loaded on a server, and this category of actions identifies any deviations from that set, and differences between the set and the latest software. Problem resolution for software configuration allows distribution of software updates, along with retrieval of new software. Tools in this category include software distribution, Internet download, and report generation.

Detailed Description Text (60):

Upon selection of an "OK" button 1442 in the Schedule window 1440, the display returns to the Operation window 1430 as shown in FIG. 14H, where the Schedule hyperlink in the Selected Views and Schedules section 1436 is replaced with a schedule criteria "when new items are added to the list". FIG. 14H illustrates the completed operational group. FIG. 14I shows an updated Notification window 1420, which has been modified in response to the creation of the Email Notification operational group by the user. The processes 1002 detect any new devices in the network and generate corresponding notices for entry into the notice database 1004. Periodically, such as every 30 seconds or so, the OGE 1006 executes one or more operational groups, including the newly created Email Notification operational group, and corresponding jobs are created and stored in the job store memory 1010. A helper from the plurality of helpers 1012, or from the local and/or remote helpers 1024 as found by the helper locator 1022, is invoked by a construction in the OGE 1006 to send an event message or notification to the automation engine 210. For new devices, an event message is sent with an appropriate EventID that is listened for by an email construction, which uses the corresponding event properties to locate the corresponding job in the job store memory 1010 associated with new devices. The construction uses the job to locate the corresponding operation and/or operational group and associated values or parameters contained therein. For example, the construction access a configuration corresponding to the configuration 1312 of an operation corresponding to the operation 1304 to access the email address and subject. The construction uses the configuration information to perform its function, which, for this example, to send an email to the address "admin@company.com" to notify the system administrator of the company with the subject "New Device Detected". In this manner, the system administrator is informed that a new device has been detected in the network system.

**WEST**

Generate Collection

Print

L7: Entry 30 of 42

File: USPT

Apr 23, 2002

DOCUMENT-IDENTIFIER: US 6378069 B1

TITLE: Apparatus and methods for providing software updates to devices in a communication network

Application Filing Date (1):19981104Brief Summary Text (6):

The distribution of software utilizing a communication medium typically requires that a number of concerns be addressed in a satisfactory manner. Typically, the download system should be efficient in its use of system bandwidth, with the practice of dedicating a wideband channel for use in software downloading being avoided. Further, each software download session should be completed as soon as possible so as to prevent tying up limited network resources and equipment at, and associated with, the centralized distribution computer.

Detailed Description Text (6):

In GSM networks, one purpose for the associated signaling channel is to convey short messages of typically less than 140 bytes. Short messages which are sent to the subscriber units 106 in the apparatus 100 are input to the mobile switching center 102 from a short message service center 108. Short messages may be originated by external parties which communicate with the short message service center 108 via, for example, electronic mail sent through the internet or the Internet, or by a modem connection through the PSTN 110, as shown.

Detailed Description Text (12):

The short message service center communication I/F device 210 may contain an internet connection or an Internet connection, whereby messages may be sent to the short message service center 108 in the form of electronic mail (e-mail) or file transfers. Alternatively, the short message service center communications I/F 210 could be a voiceband modem which communicates with the short message service center 108 via a dial-up line through the PSTN 110. In the preferred embodiment, a two-way communication link is established between the short message service center communication I/F 210 and the short message service center 108. The short message service center 108 can send acknowledgments back to the software download server 112 in order to indicate whether short messages were received by the subscriber units 106.

**WEST**

Generate Collection

Print

L7: Entry 31 of 42

File: USPT

Feb 26, 2002

DOCUMENT-IDENTIFIER: US 6351745 B1

TITLE: Communication system for distributing such message as advertisement to user of terminal equipment

Application Filing Date (1):  
19980827Detailed Description Text (57):

FIG. 18 shows the operation flow chart of the input process of the terminal 10 after the connection sequence. The input-processing unit 82 of the message viewer 76 executes this operation. If the home page button or the material request button is selected (S512), the timer 46 is cleared (S514). This prevents the message from being changed during the user's operation. The terminal 10 displays the user's address in the message viewer window to obtain the user's confirmation (S516). When the address is confirmed (S518), the terminal 10 directs the message distribution apparatus 39 to mail the material to the user's address (S520).

Detailed Description Text (118):

FIG. 33 shows an example of this update information. In the update information window, there is a button to download the software for upgrading the message viewer 76. The user sends an update response, indicating whether he wishes to obtain the message viewer 76, to the message distribution apparatus 39 (S130). The message distribution apparatus 39 determines whether to download the software according to the update response (S131: update). If the message distribution apparatus 39 determines that the software is to be downloaded, the software is sent to the connection module 78 of the message viewer 76 (S132: download).

**WEST**

Generate Collection

Print

L7: Entry 33 of 42

File: USPT

Feb 27, 2001

DOCUMENT-IDENTIFIER: US 6195432 B1

TITLE: Software distribution system and software utilization scheme for improving security and user convenience

Application Filing Date (1):19970310Brief Summary Text (42):

According to another aspect of the present invention there is provided a software distribution system in which a desired software is provided from a software provider to a user through a network, comprising: a client terminal on a user side, which is connected with a server on a software provider side through the network, and including: a registration unit for registering a user charging information and a shared key shared between the software provider and the user into the server; a request unit for sending a request for a desired software to the server; and an install unit for installing each software downloaded from the server in response to the request sent by the request unit; and a server on the software provider side, including: a charging processing unit for carrying out a charging processing according to the user charging information registered by the registration unit, when the desired software requested by the request is a fee charged software; and a download unit for downloading a software in response to the request sent by the request unit, the software to be downloaded being encrypted by using the shared key registered by the registration unit when the software to be downloaded is required to be encrypted.

Drawing Description Text (12):

FIG. 10 is a data flow diagram showing an exemplary flow of data at a time of downloading a software product in the software distribution system of FIG. 6.

Drawing Description Text (15):

FIG. 13 is a flow diagram for a processing procedure at a time of downloading a software in the software distribution system of FIG. 6.

Detailed Description Text (14):

The prevention of illegal copy is also an important issue. Even when a perfect charging mechanism is devised, the software can be copied rather easily in general, so that it is easily possible to distribute the purchased software to the others for free, or illegally resell the purchased software at cheaper price. In particular, in the today's well developed computer network, it is possible to carry out such illegal acts completely secretly by using information exchange means such as an encrypted electronic mail or message board, so that this is a very important issue today.

Detailed Description Text (94):

Next, the operation of each function unit in the software distribution system at a time of downloading a desired software from the server 401 will be described.

Detailed Description Text (116):

FIG. 10 shows an exemplary flow of the key data used in the software distribution system of FIG. 6 and an exemplary flow of data at a time of downloading the software product from the server 401.

Detailed Description Text (164):

The automatic environment judgement result obtained at the client terminal 402 is transmitted to the server 401, and the server 401 distributes the suitable software according to this automatic environment judgement result. Then, at the client terminal 402, the downloaded file is installed immediately when it is received, by the installer

provided in the download program. In this manner, the install can be realized easily and surely even when the user does not have a thorough knowledge of the personal computer.

**WEST**

Generate Collection

Print

L7: Entry 34 of 42

File: USPT

Dec 26, 2000

DOCUMENT-IDENTIFIER: US 6167568 A

TITLE: Method and apparatus for implementing electronic software distribution

Application Filing Date (1):  
19980630

Brief Summary Text (8):

To overcome the disadvantages of existing distribution systems, and consistent with the present invention, a method and apparatus for electronic software distribution is disclosed which makes electronic software distribution and e-commerce a viable channel for distributing and selling software products over the Internet on web locations. An electronic software distribution method consistent with the present invention has received ISO 9001 certification and has been used successfully in over 45 releases with over 100,000 downloads and \$1 million in savings compared to prior art physical software distribution methods. This method addresses the technical problem of defining the criteria that must be met and completed in order to distribute and sell software products over the Internet in a secure, reliable, and competitive fashion.

Detailed Description Text (11):

FIG. 3 shows a data processing system 300 which is programmed to perform the functions of a user, for example user systems 106, 108. Data processing system 300 includes a processor 302 and storage 304, which includes browser software 318 and email software 320. Data processing system 300 also includes a network connection 102, an input device 308, output device 310, computer readable medium 312, and computer readable input device 314. Browser software 318 is used for viewing the pages of the online sites in both private and public environments. Email software 320 is used for relaying messages electronically in connection with the electronic software distribution process 400 (described below) performed by electronic software distribution apparatus 100. The discussion above in FIG. 2 relating to the variations of the parts of data processing system 200 also applies to data processing system 300 of FIG. 3.

Detailed Description Text (15):

FIG. 5 is a flow chart 500 showing steps performed in a data processing system programmed to implement a method for electronic software distribution consistent with the present invention. Flow chart 500 begins at step 502 where the product team (PT) submits a completed electronic software distribution readiness questionnaire (ERQ) to Operations (OPS). The submission of the ERQ is done electronically, for example via e-mail, as shown in FIG. 6 in which the team leader for product X has sent the ERQ to Operations via an email message 600. ERQ information is contained in the body 602 of email message 600.

Detailed Description Text (17):

Then in step 506, the product team completes a software classification questionnaire (SCQ) for export approval. The software classification affects how the software product will be distributed and thus, affects how the online site is set up. The product team then receives export approval, in step 508, Operations approves the ERQ and e-mails the product team, in step 510. An example of such an email is shown in FIG. 8, where email message 800 communicates approval of the acceptance criteria, and is sent from Operations to the product team leader. In step 512, Operations post the ERQ in a central location such as the electronic software distribution (ESD) web site which includes the product roadmap and readiness questionnaire web pages. An example of an acceptance criteria page is shown in FIG. 7 which shows an Internet browser pointing to a page containing acceptance criteria 702.

Detailed Description Text (22):

Steps 526, 528, and 530 are performed in parallel with steps 520 and 522. In step 526, a legal review of the text of the preliminary HTML pages is performed along with a review of the binary code license (BCL) agreement. Data bits associated with the product are then provided by release engineering in step 528. In step 530, release engineering provides the data bits to IR for inclusion in the online site. These bits are used in step 524 for the database entry work and for moving the HTML pages to the user acceptance test environment (UAT). In step 530, a software release manager (SRM) provides via email an electronic bill of materials (EBOM) 1104, shown as an attachment to an e-mail message 1102, as shown in FIG. 11. Then in step 522, Operations coordinates HTML page build for download and the addition of EBOM-related meta tags to HTML page files and copies them to the test environment. The meta tags are used in step 524 where the database entry work and the relocation of the pages to a user acceptance test (UAT) environment is performed electronically. When step 524 is complete, an engineering change order (ECO) may be approved, in step 532. ECO approval is performed electronically via email 1202 as shown in FIG. 12. Steps 518 through 532 generally correspond to step 406 of flow chart 400.

Detailed Description Text (23):

After the ECO is approved in step 532, Operations notifies the electronic software distribution team (EST) via email, as shown by email message 1302 in FIG. 13. The product team then begins to test the text and links of the page in step 534. These tests may include items from a UAT checklist 1502 such as that shown via Internet browser 1504 of FIG. 15. In step 536, testing fixes are confirmed and Operations schedules retests if necessary. Steps 534 and 536 generally relate to step 408 of flow chart 400.